

# Confirmatory Samples of Pre-Transfusion Compatibility Testing: Analysis of the Time Gap between Confirmatory Samples

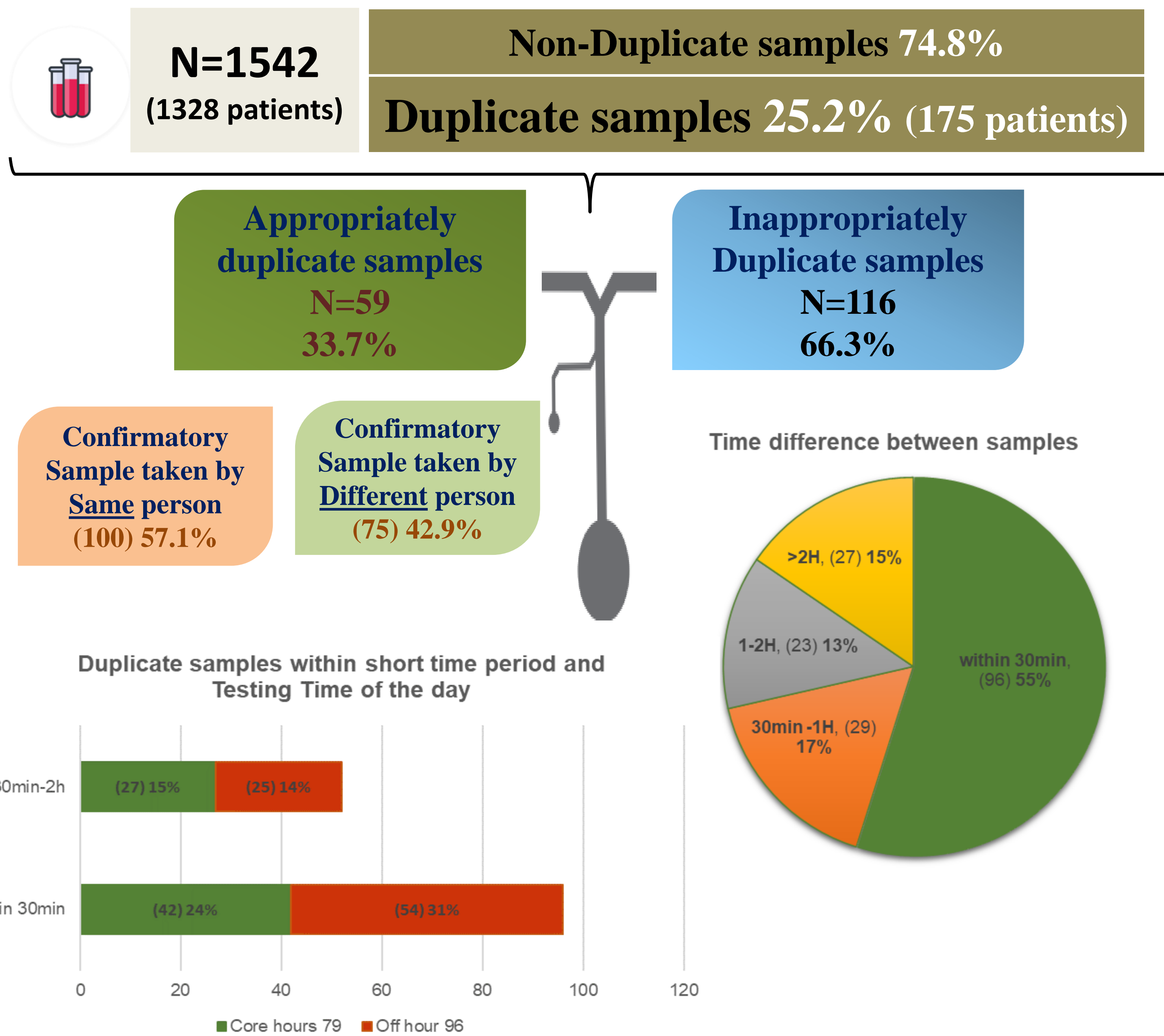
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## Introduction

- A key recommendation of BSH guidelines for pre-transfusion compatibility procedures states, "Unless secure electronic patient identification systems are in place, a second sample should be requested for confirmation of the ABO group of a **first time patient prior to transfusion**"
- However, practice of taking two pre-transfusion samples in the same phlebotomy episode and labelling one with a different time is common practice which negates the recommendation.
- Some of these results in an incorrect transfusion and unnecessary & inappropriate duplicate sample testing contributing to increased health care costs.

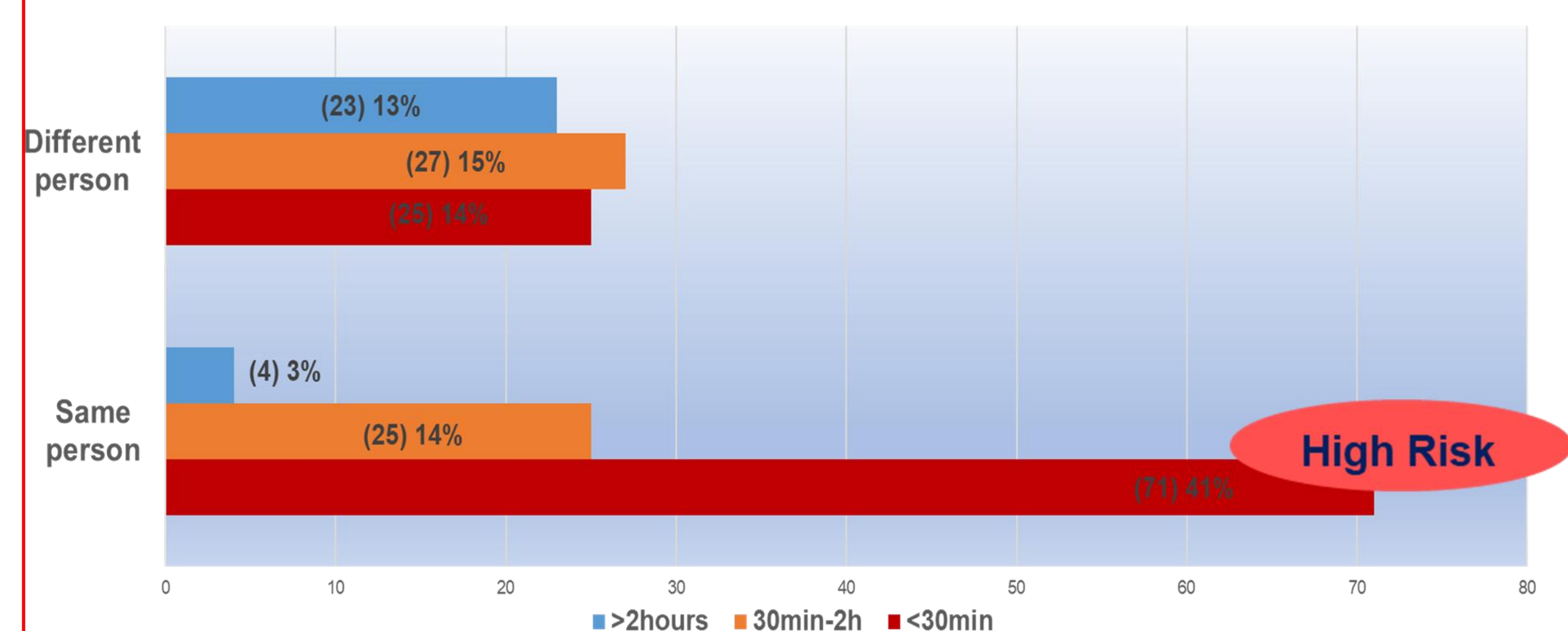
## Results



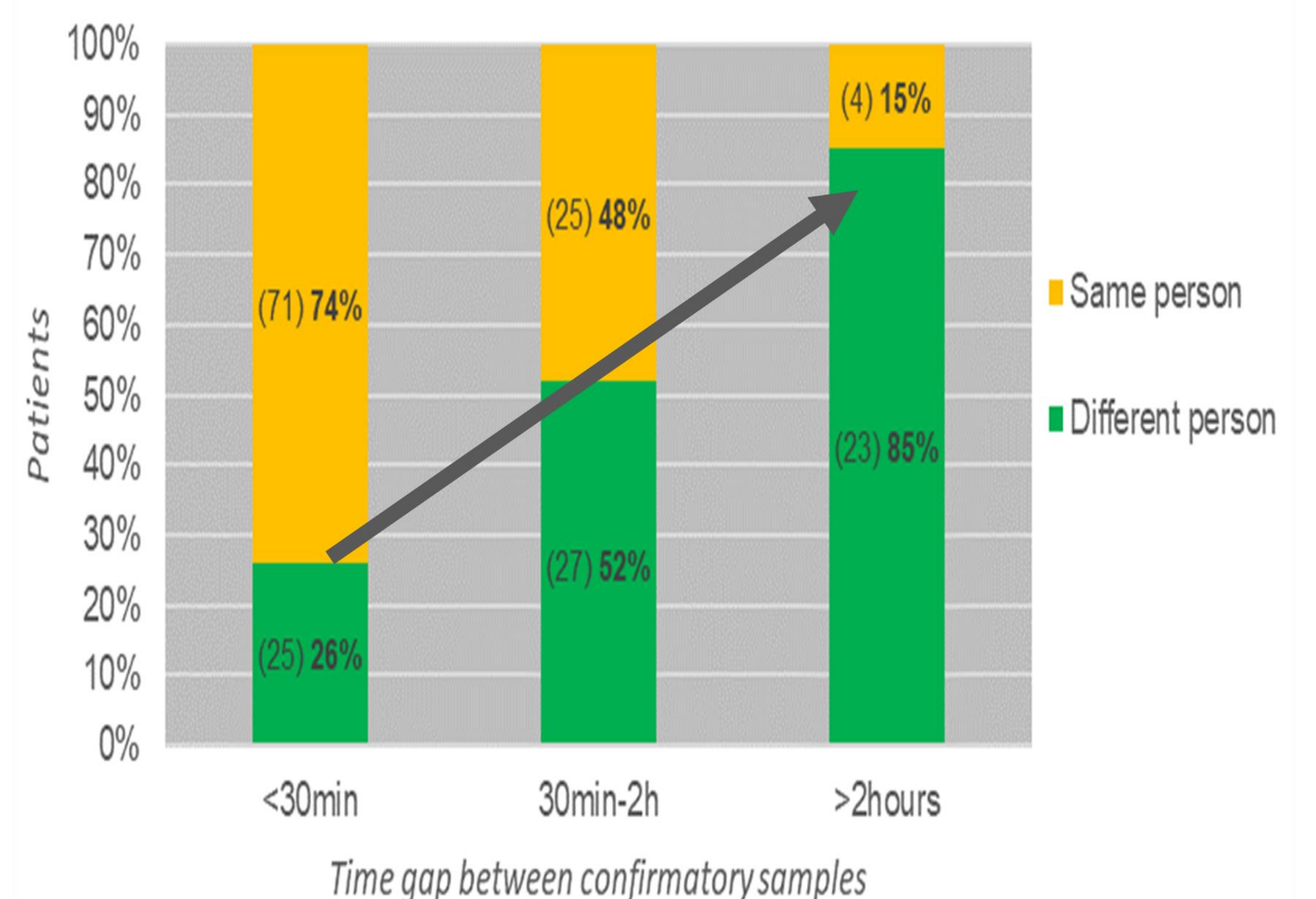
## Materials & Methods

- A two-week retrospective review to identify all duplicate pre-transfusion compatibility tests performed during 24 hours.
- Duplicative testing was classified as appropriate or inappropriate by availability of historical blood group.
- Time gap and the phlebotomy episode were analysed.

### Time gap between confirmatory sample Vs type of phlebotomist



### Comparison between person and timing of sample collection



- Out of all the duplicates 54.9% of patient's confirmatory samples were taken within a very short period (30min) while 84.6% were taken within 2hours. Significantly, 41% of samples were taken by the same person within a short period(30min).
- Out of all the duplicates, number of confirmatory samples taken after 2hours by a different person (85%) is significantly higher than by the same person (15%).

## Conclusion

- To prevent errors due to duplicate sampling, two sampling episodes must be separated in time and ideally each taken by a different person.
- This review suggest that a time gap of more than 2hours for the confirmatory sample encourages the second sample to be taken by a different person and this does not impede the delivery of urgent blood or components.

## References

- Guidelines for pre-transfusion compatibility procedures in blood transfusion laboratories. *Transfusion Medicine* 2013; 23(1):3-35
- Thomas W et al. Two samples for blood transfusion: single centre experience *Transfusion Medicine* 2014; 24(4):209-212 \* Milkins C et al